WHAT IS CLAIMED IS:

1. A multilayered hydrogen absorbing body, comprising:

at least two types of hydrogen absorbing materials which are laminated, wherein degrees of strains caused due to absorption/desorption of hydrogen are different between the hydrogen absorbing materials adjacent to each other.

2. The multilayered hydrogen absorbing body according to claim 1, wherein a difference in a hydrogen absorption amount between the hydrogen absorbing materials adjacent to each other is at least 0.5 % by mass.

3. The multilayered hydrogen absorbing body according to claim 1, wherein the hydrogen absorbing materials have a yield stress of at least 50 MPa.

4. The multilayered hydrogen absorbing body according to claim 1, wherein at least one of the at least two types of the hydrogen absorbing materials is formed of a magnesium alloy which has a Mg content of 50 to 90 at %, and which contains a least one element selected from Ni, Nd, Ce, Y and Ca.

5. The multilayered hydrogen absorbing body according to claim 4, wherein each of the hydrogen absorbing alloys forms a layer having a thickness of 10 to 1000 nanometers.

6. The multilayered hydrogen absorbing body according to claim 1, wherein at least one of the at least two types of the hydrogen absorbing materials is a vanadium alloy which has a V content of 10 to 99 at %.

7. The multilayered hydrogen absorbing body according to claim 6, wherein each of the hydrogen absorbing alloys forms a layer having a thickness of 10 to 1000 nanometers.

8. The multilayered hydrogen absorbing body according to claim 1, wherein at least one of the at least two types of the hydrogen absorbing materials is a hydrogen absorbing alloy formed of a plurality of phases on a nanometer scale.

9. The multilayered hydrogen absorbing body according to claim 8, wherein the hydrogen absorbing alloy forms a layer having a thickness of 10 to 1000 nanometers.

10. The multilayered hydrogen absorbing body according to claim 1, wherein different types of hydrogen absorbing materials are laminated so as to form two layers.

11. The multilayered hydrogen absorbing body according to claim 10, wherein the hydrogen absorbing material forming one of the two layers is palladium, and the hydrogen absorbing material forming the other layer is a magnesium alloy.

12. The multilayered hydrogen absorbing body according to claim 10, wherein the hydrogen absorbing material forming one of the two layers is palladium, and the hydrogen absorbing material forming the other layer is a vanadium alloy.